

REMARKS/ARGUMENTS

Claims 23-44 are pending herein. Claims 1-22 have been cancelled in favor of new claims 23-44, which correspond to original claims 1-22, but correct matters of form and more distinctly point out and claim the present invention. Applicant respectfully submits that no new matter has been added.

1. The objections to the drawings in paragraph 1 of the Office Action are noted, but deemed moot in view of the submission of replacement drawing sheets submitted herewith as Appendix C.
2. The objections to the drawings in paragraphs 2 and 3 of the Office Action are noted, but deemed moot in view of the amendments to the specification at page 19, line 3 to amend an incorrect reference and at page 40 lines 19-20 to amend the text in accordance with Figure 20 filed herewith.
3. The objection to the specification in paragraph 4 of the Office Action is noted, but deemed moot in view of the amendment to the specification at page 40 lines 19-20 filed herewith.
4. Claims 1-22 were rejected under §112 second paragraph as being indefinite. As previously stated, Applicant has cancelled claims 1-22 in favor of new claims 23-44, which correspond to original claims 1-22, but correct matters of form and more distinctly point out and claim the present invention. To the extent that this rejection may be applied against the new claims, it is respectfully traversed.

With respect to claim 1, the Examiner's assertion that the phrase "the read-out quality information" lacks antecedent basis in paragraph 8 of the Office Action is noted but deemed moot in view of the cancellation of claim 1. Claim 23, which replaces claim 1, does not contain the aforementioned term. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection.

With respect to claims 7 and 18, the Examiner's assertion concerning the claim limitation recited in paragraph 9 of the Office Action is noted but deemed moot in view of the cancellation of claims 7 and 18. Claims 29 and 40, which replace claims 7 and 18, respectively, do not contain the phrasing the Examiner asserted was not understandable. The meaning of the language in question can be found in the specification at page 24. Based on the above, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection.

5. Claims 12 – 22 were rejected under §101 for being directed to non-statutory subject matter as detailed on pages 5-8 of the Office Action. As previously stated, Applicant has cancelled claims 1-22 in favor of new claims 23-44, which correspond to original claims 1-22, but correct matters of form and more distinctly point out and claim the present invention. To the extent that this rejection may be applied against the new claims 34-44, it is respectfully traversed.

The Examiner asserted that claims 12-22 only recite an abstract idea¹ and do not produce a useful, concrete and tangible result as required by §101.² In accordance with MPEP §2106, patentable subject matter – computer-related inventions, states that computer related processes are limited to a practical application in the technological arts and what is determinative is not how the computer performs the process, but what the computer does to achieve a practical application. See *Arrhythmia Research Tech. v. Corazonix Corp.* 958 F.2d 1053, 1057, 22 USPQ2d 1033, 1036 (Fed. Cir. 1992) (MPEP §2106 at pages 2100-17-18). Here, the claimed processes are limited to a practical application, namely, providing statistical support data relating to the sale price and time required to sell similar transaction target articles in the same price range and other price ranges. The data input into the claimed processes includes numeric data, such as selling price of similar transaction target articles of similar quality and length of time a transaction target article was advertised before sale, as

¹ Office Action at page 6.

² Office Action at page 8.

well as non-numeric data, such as answers to assessment questions and quality evaluating information. Applicant asserts that this transformation and manipulation of numeric and non-numeric data into statistical support data provides buyers and sellers of transaction target articles information in a form that is tangible and very useful.

Further, Applicant disagree with the Examiner's assertion that the claimed processes "do not apply, involve, use, or advance the technological arts since all the recited steps can be performed in the mind of a user or by use of pencil and paper" (Office Action at page 6). Here, the recited processes receive a limited input set of data from the requestor and make an initial determination whether to process the input data based on the quality of the transaction target article (i.e., using period). If the using period has not been exceeded, the processes then attempt to locate transaction achievement information for the same transaction target article of similar quality. Where transaction achievement information is located, the processes read the transaction achievement information, manipulate/convert non-numeric data into a numeric value or representation, compute and transmit one or more of the statistical support data items for a transaction target article to the requestor, as described in the application. The data output from the price setting support processes provides statistics, which enable the requestor to determine whether the initial selling price is optimal based on financial or other external considerations. The aforementioned processes at a minimum use the technological arts since data is evaluated, manipulated/converted and transformed into an output that is useful, as admitted by the Examiner. In addition, the recited processes are limited to a practical application and are, therefore, statutory subject matter. Accordingly, Applicant respectfully requests the Examiner reconsider and withdraw this rejection.

6. Claims 1-7, 9, 12-18 and 20 were rejected under §102(b) over Walker. The rejection is noted but deemed moot in view of Applicant's cancellation of claims 1-22 in favor of new claims 23-44, which correspond to original claims 1-22, but correct matters of form and more distinctly point out and claim the present invention. To the extent that this rejection may be applied against new claims 23-29, 32, 34-40 and 42, it

is respectfully traversed. In general, Walker discloses a system and method for determining a posting payment amount (Col. 2, lines 42-43). With respect to claims 1 and 12 (new claims 23 and 34), the Examiner's cited reference in Walker at Col. 5, lines 27 and 32-36, discusses "receiving" information, but does not address "receiving identifying information and quality evaluating information." Similarly, the Examiner's cite to Col. 5, lines 1, 22, discusses making an item that is for sale known by displaying the item on a buyer's computer display, but does not teach or suggest transmitting to a requestor the quality information for the transaction target article. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 2 and 13 (new claims 24 and 35), the Examiner's cited reference at Col. 5, lines 23-25 discloses that the memory units and/or the storage device may store instructions adapted to be executed by the processor. However, the cited reference neither teaches nor suggests a statistic value calculating unit that calculates a statistical value for transaction price of a transaction target article where at least one transaction achievement information is located and read. In addition, the Examiner's cite to Col. 5, lines 1, 22, does not teach or suggest transmitting to a requestor the calculated statistic value for the transaction target article, for the reason discussed under claims 23 and 34. In addition, claims 24 and 35 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 3 and 14 (new claims 25 and 36), the Examiner's cited reference to FIG. 4 shows a tabular representation of a portion of the item database. This reference cite neither teaches or suggests a statistic value calculating unit that calculates a statistic value of the necessary time for a transaction to be completed

where at least one transaction achievement information is located and read. In addition, the Examiner's cite to Col. 5, lines 1, 22, does not teach or suggest transmitting to a requestor the statistic value of the necessary time together with the statistic value of the transaction price for the transaction target article, for the reason discussed under claims 23 and 34. In addition, claims 25 and 36 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 4 and 15 (new claims 26 and 37), the Examiner's cited reference to Col. 7, lines 4-7 discloses that the posting system can examine past posts for the same class and type of item. Additionally, in text not cited, Walker discloses that the posting system may estimate the value of an item. However, this neither teaches nor suggests an extraction unit extracting transaction achievement information based on the desired price and quality evaluating information input by the seller. Further, the Examiner's cite to Col. 5, lines 1, 22, does not teach or suggest transmitting to a requestor the statistic value of the necessary time based on the extracted item of transaction achievement information for the transaction target article, for the reason discussed under claims 23 and 34. In addition, claims 26 and 37 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 5 and 16 (new claims 27 and 38), the Examiner's cited reference to FIG. 8 discloses a tabular representation illustrating a relationship between floor prices, previous posting information and posting payment amounts. FIG 8 data is limited to percentage of items that sold with a particular floor price.

However, this neither teaches nor suggests a statistic value calculating unit that calculates a statistic value of the transaction price and a statistic value of the necessary time in each of a plurality of price ranges. Additionally, the Examiner's cite to Col. 5, lines 1, 22, does not teach or suggest transmitting to a requestor the statistics of the transaction prices and the necessary time corresponding to each of the price ranges for the transaction target article, for the reason discussed under claims 23 and 34. In addition, claims 27 and 38 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 6 and 17 (new claims 28 and 39), the Examiner's cited reference to FIG 4, which shows a tabular representation of a portion of the item database, as previously discussed, fails to teach or suggest calculating a statistic value of the transaction price and a statistic value of the necessary time in each of a plurality of advertising periods set for the transaction target article. Additionally, the Examiner's cite to Col. 5, lines 1, 22, does not teach or suggest transmitting to a requestor the calculations of the transaction prices and the necessary time corresponding to each of the advertising periods for the transaction target article, for the reason discussed under claims 23 and 34. In addition, claims 28 and 39 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 7 and 18 (new claims 29 and 40), the Examiner's cited reference to FIG 6A, which discloses a tabular representation of a condition item sheet and pricing table. FIG 6A and the associated text fail to teach or suggest basing quality information on the seller's using period and dividing the seller's using period

into a plurality of time periods that correspond to the condition of a transaction target article. In addition, claims 29 and 40 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

With respect to claims 9 and 20, (new claims 31 and 42), the Examiner's cited reference to Col. 6, lines 23-27 discusses transmitting a blank Condition of Item Sheet, which may ask the seller the condition of the item being sold or what peripherals are included with the item. The cited reference does not teach or suggest employing an assessment ranking in which the assessment score is incremented or decremented based on the seller's answer. In addition, claims 31 and 42 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. In view of the above, Applicant respectfully submits that Walker does not teach each and every element recited in the amended claims. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

Claims 8 and 19 (new claims 30 and 41) were rejected under 103(a) over the Examiner taking official notice that no one would purchase a component that has exceeded its useable life span. This rejection is noted but deemed moot in view of Applicant's cancellation of claims 1-22 and submission of replacement claims 23-44, which amend original claims 1-22 to better conform to U.S. practice. To the extent that this rejection may be applied against new claims 30 and 41, it is respectfully traversed. Dependent claims 30 and 41 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

Claims 10 and 21 (new claims 32 and 43) were rejected under §103(a) over Walker and claims 11 and 22 (new claims 33 and 44) were rejected over Walker in

view of Cherington. These rejections are noted but deemed moot in view of Applicant's cancellation of claims 1-22 and submission of replacement claims 23-44, which amend original claims 1-22 to better conform to U.S. practice. To the extent that this rejection may be applied against new claims 32, 33, 43 and 44, it is respectfully traversed. Dependent claims 32, 33, 43 and 44 depend from claims 23 and 34, respectively, and claims 23 and 34 define patentable subject matter for the reasons explained above. Accordingly, Applicant respectfully requests that the above rejection be reconsidered and withdrawn.

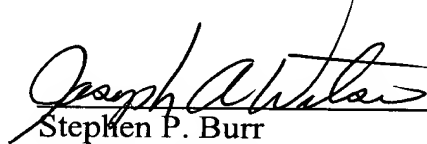
If the Examiner believes that contact with Applicant's attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicant's attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

February 9, 2006

Date



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Attachments: Appendix A - substitute specification
Appendix B - marked-up specification
Appendix C - replacement drawing sheets
Appendix D - annotated drawing sheets

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Amendments to the Drawings:

Attached hereto as Appendix C are 7 pages of replacement drawing sheets including changes to Figs. 2, 3, 4, 12, 19, 20 and 22. Also attached hereto as Appendix D are 7 pages of Annotated Drawing sheets showing the changes made to Figs. 2, 3, 4, 12, 19, 20 and 22 marked in red.

Attachment: Appendix C - replacement drawing sheets
Appendix D - annotated drawing sheets

SUPPORT SYSTEM FOR SETTING PRICE OF TRANSACTION TARGET ARTICLE

BACKGROUND OF THE INVENTION

1. Field of the Invention

5 The present invention relates generally to a support system for setting a price of a transaction target article, and more particularly to a transaction target article price setting support system applicable to a computer network based transaction system.

10 2. Description of the Prior Art

 With a spread of the Internet over the recent years, the commercial transactions are daily conducted via the Internet.

 A conventional transaction information system for providing services for ~~the~~ commercial transactions via the Internet, especially a used article transaction information system, 15 includes a sales bulletin board (electronic bulletin board system) on which a sales price of a transaction target article is put up, an auction system in which a participant who sets the highest price for the auction article makes a successful 20 bid of this article, and so on.

 In the Internet-based commercial transactions described above, the users of the Internet are allowed to put up sales target articles on the sales bulletin board and participate in the commercial transactions as sales applicants such as entering 25 the articles in the auction.

 According to the used article transaction information system, the sales applicant puts up his or her own

~~unnecessary~~transaction target article on the sales bulletin board or enters it in the auction. In this case, the sales applicant is able to set a price ~~effor~~for the transaction target article (a ~~minimum price in the auction~~) as the applicant desires.

5 On the occasion of setting the price by the sales applicant, however, the conventional transaction information system provides ~~none of~~no information for setting the price.

A great majority of the sales applicants are, however, amateurs ~~about~~with respect to how to sell the articles offered, and know nothing about the current market prices ~~on the market of the sales~~for sale of the transaction target ~~used~~-article. The sales applicant therefore tends to set the price higher than the market price, with the result that ~~the~~a purchaser can not be found ~~out~~, or ~~by contrast~~conversely, sets the price lower
10
15 than the market price, with the result that the sales applicant becomes aware of having made an unprofitable transaction after the ~~dealings~~sale.

SUMAMRY OF THE INVENTION

20 It is a primary object of the present invention to provide a support system for setting a price of a transaction target article, by which a sales applicant is able to set a proper price of the transaction target article.

To accomplish the above object, according to one
25 aspect of the present invention, a support system for setting a price ~~effor~~for a ~~transaction target article in responseto a request~~ ~~given from a requester~~, comprises a storage unit storing

identifying information for ~~identifying the transaction target~~
article and quality information for indicating at the quality of
the transaction target article, a receiving unit receiving the
identifying information of ~~the transaction target article of and~~
5 the quality evaluating information for evaluating a quality of
the transaction target article for which a price should be set
by the requester, ~~and quality evaluating information for~~
~~evaluating a quality of the transaction target article,~~ a reading
unit reading the quality information coincident with the received
10 identifying information and quality evaluating information, and
a transmitting unit for transmitting the ~~read-out~~ assessed
quality information to the requester.

According to the present invention, the quality
information is transmitted to the requester as ~~the support~~
15 information for setting the price, and hence the price can be
set with the quality information being used as a key factor.

The above support system according to the present invention
may further comprise a transaction achievement information
storage module for storing completed transaction (achievement)
20 information containing ~~information on a transaction price of~~
~~a transaction~~ information for transactions actually
~~conducted~~ completed with respect to the transaction article, and
a statistic value calculating unit for calculating, ~~when the~~
~~reading unit reads from the transaction achievement information~~
25 ~~storage module at least one item of transaction achievement~~
~~information coincident with the inputted identifying~~
~~information and the read-out quality information, a statistic~~

~~value of the transaction price contained in at least one item~~
~~of transaction information that has been read out,~~ a statistic
value for the transaction price when at least one transaction
achievement information coincident with the input identifying
5 information and quality information is read-out from the
transaction achievement information storage module, and the
transmitting unit may transmit the calculated statistic value
of the transaction price. The statistic value is, for example,
an average value of the transaction price. Thus, the statistic
10 value of the transaction price based on transaction achievements
is transmitted as ~~the~~ support information to the requester, and
therefore the requester is able to set the price more properly.

The support system according to the present invention may
further comprise a necessary time related information storage
15 module storing information on ~~a~~ the necessary time for ~~the~~ a
transaction to actually conducted be completed with respect to
the transaction target article. The statistic value
calculating unit may calculate a statistic value of the necessary
time on the basis of a single item or plural items of transaction
20 achievement information ~~read-out,~~ and the transmitting unit may
transmit, to the requester, the statistic value of the necessary
time together with the statistic value of the transaction price.
The statistic value is, for instance, an average value of the
necessary time.

25 The support system for setting the price of the transaction
target article according to the present invention is capable
of supplying the requester with the quality information and the

statistic value serving as a key factors in ~~for~~ setting the price, whereby the sales applicant ~~becomes~~ is able to set the proper price of the transaction target article.

5 BRIEF DESCRIPTION OF THE DRAWINGS

~~FIG. 1 is a diagram showing~~ FIG. 1A and 1B are high-level diagrams of a network architecture of a transaction system in ~~an~~ one embodiment of the present invention;

10 ~~FIG. 2 is a diagram showing an example of a hardware~~ example of a hardware architecture for the server and client in one embodiment of the present invention ~~architecture of the transaction system;~~

15 ~~FIG. 3 is a~~ server process flowchart showing processes of a server of the first embodiment of the present invention (sheet 1);

~~FIG. 4 is a~~ server process flowchart showing processes of the server (sheet 2);

~~FIG. 5 is a diagram showing an~~ example of an input display example on an input screen;

20 ~~FIG. 6 is a diagram showing an~~ example of a vehicle component database;

~~FIG. 7 is a diagram showing an~~ example of a transaction history database;

25 ~~FIG. 8 is a diagram showing an~~ example of a price range table;

~~FIG. 9 is a diagram showing an~~ example of a message of support information displayed in a client to a sales applicant

corresponding to process step S13;

FIG. 10 is an ~~explanatory diagram showing~~ example of a first
collection table;

FIG. 11 is a ~~diagram showing an~~ example of a message of
5 ~~the support information displayed in the client to a sales~~
applicant corresponding to process steps S15 and S16;

FIG. 12 is an ~~explanatory diagram showing~~ example of a
second collection table;

FIG. 13 is a ~~diagram showing an~~ example of a message of
10 ~~the support information displayed in the client to a sales~~
applicant corresponding to process steps S18 and S19;

FIG. 14 is a ~~diagram showing an~~ example of an input screen
in a second embodiment;

FIG. 15 is a ~~diagram showing an~~ example of an assessment
15 item database;

FIG. 16 is a ~~diagram showing a display~~ an example of a second
input screen;

FIG. 17 is an ~~explanatory diagram showing an~~ example of
an assessment rank table;

FIG. 18 is a ~~diagram showing an~~ example of a message of
20 ~~the support information displayed in the client to a sales~~
applicant;

FIG. 19 is a server process flowchart showing an operation
of the server in the second embodiment (sheet 1);

FIG. 20 is a server process flowchart showing the operation
25 of the server in the second embodiment (sheet 2);

FIG. 21 is a ~~diagram showing a display~~ an example on the of

an input screen in a third embodiment;

FIG. 22 is an ~~explanatory diagram showing~~example of a
vehicle database; and

FIG. 23 is an ~~explanatory diagram showing~~example of a
5 maintenance/repair history database.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Embodiments of the present invention will hereinafter be
discussed with reference to the accompanying drawings. The
10 present invention is not, however, limited to the following
embodiments.

[First Embodiment]

To begin with, a first embodiment of the present invention
will be explained.

15 <Network Architecture>

FIG. 1A is a high-level diagram showing an example of a
network system architecture ~~effor~~a transaction system to which
a support system for setting a price of a transaction target
article, ~~is applied~~. FIG. 1B is a high-level interface diagram
20 of a bulletin board in one embodiment of the present
inventions~~showing a principle of the transaction system~~

Referring to FIGS. 1A and 1B, the transaction system is
configured ~~by~~to operate on a server S as the transaction target
article price setting support system, and the server S connects
25 to a plurality of clients C, as request source parties, ~~connected~~
via an Internet N ~~to the server S~~. ~~A topology in~~The methods
by which the clients C and the server S are connected to the

Internet N, may ~~take~~include any one of the existing connection modes (such as a dial-up access, an ISDN connection and a leased circuit connection).

The server S functions as a World Wide Web (WWW) server
5 and retains information on a Web site (homepage) ~~including that~~
includes a bulletin board 1 for browsing ~~pieces of sales~~
information of articles for sale. The server S provides the
client C with access to the Web site, including the bulletin
board 1, in response to a client C request ~~given from each client~~
10 E. Each client C functions as a WWW browser, and a user ~~of~~at
the client C is able to browse the bulletin board 1 provided
~~from by~~ the server S. The bulletin board 1 lists ~~up the~~
transaction information on the sale articles ~~dealt with which~~
are referred to as transaction target ~~target~~ articles, and the
15 ~~article information~~ for each transaction target article is
registered in an unillustrated database of the server S.

The user, as a sales applicant (seller) of each client
C, is allowed to ~~put up~~enter information ~~on~~on the bulletin board
1 for the article that the user, himself or herself, wishes to
20 ~~sell, on the bulletin board 1. On the other hand~~In addition,
~~the user, when the sale of the~~a transaction target article the
user, himself or herself, wants to ~~get~~purchase is put on the
bulletin board 1, the user is able to show an intention of
purchasing the article via the bulletin board 1 to the sales
25 applicant (seller) or otherwise (such as delivering an E-mail
indicating the intention of buying it to the sales applicant).

A sales contract is ~~thereby~~then agreed upon between the

seller (the sales applicant) and the purchase applicant, and the article is exchanged ~~with~~for a value equivalent. A provider (administrator) of the Web site including the bulletin board 1 may be categorized as a broker via the bulletin board 1, who
5 collects a brokerage fee from the user ~~putting up, e.g., inputting~~ the sales information on the bulletin board 1.

Further, though not shown, the server S provides each of the clients C with a virtual auction site as a part of the Web site. The user of each client C ~~enters a~~enters a transaction target article the user desires to sell, and ~~shows~~enters a minimum price thereof. Then, a user of ~~either~~another client C ~~shows~~enters a price of this article the user is willing to pay for the transaction target article that is equal to or higher than the minimum price. Then, the user ~~showing~~entering the highest price is able to
15 purchase this transaction target article.

Thus, according to the Internet N based transaction system, the users of the clients C are capable of selling and buying ~~the~~transaction target articles via the bulletin board 1 and the virtual auction site as well.

20 In the first embodiment, the server S provides each of the clients C with access to the bulletin board 1 ~~for the~~inputting transaction information (sales information) on vehicle components (parts) as transaction targets. The user of the client C is either freely able ~~to~~ or given a permission to ~~put~~
25 up input transaction information on the bulletin board 1 for a user's own vehicle component (irrespective of whether it is new or used ~~one~~) that the user desires to sell. The vehicle ~~in~~

~~terminology~~components may include a privately owned car, a truck, a motor bicycle, etc.

At this time, the user must indicate a desired sales price ~~effor~~ for the vehicle component on the bulletin board 1. ~~On this~~
5 ~~occasion~~Here, the server S provides the user of the client C with information for ~~supporting~~assisting the user ~~to set in~~
setting the desired sales price.

<Hardware Architectures of Client and Server>

Next, hardware architectures of each client C and the
10 server S shown in FIG. 1 will be ~~explained~~described. FIG. 2,
for example, is a diagram showing an example of the~~shows one~~
embodiment of a hardware architectures~~architecture for~~ of the
client C and the server S. In this example, all of the~~The~~ clients
C ~~have, however,~~are assumed to have the same architecture, and
15 therefore, only one client C is illustrated in FIG. 2.

Referring to FIG. 2, the server S, ~~is constructed by use~~
~~effor~~for example, comprises a personal computer (PC), a workstation
(WS), a host computer including the above ~~these~~ components, or
a dedicated server machine etc.

20 The server S includes a CPU 2 (corresponding to a reading
unit, a statistic value calculating unit and an extracting unit),
a main memory (MM) 3, an external storage device (secondary
storage) 4 (corresponding to a storage unit), a communication
interface (corresponding to a communication interface I/F: a
25 transmitting unit and a receiving unit) 5 connected via a
communication line to the Internet N, and interface circuits
(I/F) 6, 7 and 8.

A display device 9 such as a cathode-ray tube, a liquid crystal display, a plasma display etc is connected to the I/F 6. A keyboard (KBD) 10 is connected to the I/F 7. A pointing device (PD) 11 such as a mouse, a trackball, a joystick, a flat point etc is connected to the I/F 8.

The external storage device 4 ~~is constructed by use of~~ comprises, for example, a readable/writable recording medium such as a hard disk, a floppy disk, an optical disk, a magneto-optic disk (MO) etc. ~~the~~ The external storage device 4 is stored with ~~plural kinds of~~ a plurality of programs such as an operating system (OS), a program relative to a communication protocol and a program for the server S to function as ~~the~~ a WWW server which are all executed by the CPU 2. The external storage device 4 ~~is further stored with~~ also stores data (such as a text file, an image file and an HTML (HyperText Markup Language) file that create a homepage containing the bulletin board 1.

Moreover, the external storage device 4, ~~for~~ stores the transaction information the user (sales applicant) of the client C ~~who puts up an~~ input to the bulletin board 1 for the vehicle component the user desires to sell, ~~retains~~ as well as retaining information in the following databases (DBs) for supporting the user on setting a component DB-23, a transaction history DB-24, a price range table 25, an assessment item DB-26, an assessment rank table 27, a maintenance/repair history DB-28 and a vehicle DB-29 as databases (DBs) for supporting the user to set the price of the vehicle component: a component DB 23, a transaction history DB 24, a price range table 25, an assessment item DB 26, an

assessment rank table 27, a maintenance/repair history DB 28
and a vehicle DB 29. The external storage device 4 corresponds
to a storage unit according to the present invention.

The CPU 2, ~~corresponding to an input of indication of an~~
5 ~~when initialized by an operator of the server S, copies necessary~~
~~items of data programs and data files to main memory 3 from the~~
external storage device 4, then loads the necessary
~~program programs and data files corresponding to the input of~~
~~indication into the MM 3 from the external storage device 4 and~~
10 executes the loaded program. The CPU 2 thereby executes
processes related to communications protocols for establishing
communications with the client C, e.g., a variety of information
processes, such as ~~a process of processes for~~ providing the
homepage containing the bulletin board 1 in response to a client
15 ~~C request from the client C, and a process of processes for~~
providing support information for ~~supporting the setting of the~~
price of ~~the~~ a vehicle component.

Namely, the CPU 2 executes ~~the program programs~~, whereby
the server S functions as a transaction target article price
20 setting support system including the storage unit, the receiving
unit, the reading unit, the transmitting unit, the statistic
value calculating unit and the extracting unit.

The main memory (MM) 3 is used as a working area for the
CPU 2 and also used as a video random access memory (VRAM) for
25 storing texts, images and videos displayed on a screen of the
display device 9.

The client C ~~is constructed by using the~~ comprises, for

example, a personal computer (PC). All the computers used as
client C are each capable of becoming at least an information
processing terminal (DTE: Data Terminal Equipment) to the
existing Internet N and include devices, such as the workstation
5 (WS), mobile computers, personal digital assistants (PDA) like
an electronic note etc, a car navigation terminal, a mobile
telephone (cellularphone) and so on, ~~can be applied to the client~~
C.

The client C includes a CPU 12, a main memory MM 13, an
10 external storage device 14, and a communication interface (I/F)
15, interfaces (I/Fs) 16, 17 and 18 that are the same ~~components~~
as I/Fs 9, 10 and 11 ~~those of the server S~~. A display device
19 is connected to the I/F 16. A KBD 20 is connected to the
I/F 17. A PD 21 is connected to the I/F 18.

15 The external storage device 14 is stored with a variety
of programs such as an OS, a program for the client C to function
as the WWW browser, and a program related to the communication
~~protocol with respect to the~~ protocols for establishing
communications with server S.

20 The CPU 12, ~~corresponding to an input of indication of when~~
utilized by the user (operator) of the client C, copies necessary
items of data to MM 13 from the external storage device 14, then
loads the ~~program corresponding to the input of~~
~~indication necessary~~ programs into the MM 13 from the external
25 storage device 14 and executes the ~~program~~ programs. The CPU
12 ~~thereby then~~ executes a process ~~offor~~ requesting the server
S to provide the bulletin board 1, a process ~~offor~~ transmitting

to the server S the information that should be put up on the bulletin board 1, and a process ~~of~~for requesting the server S to provide information for supporting the user to set a price of the vehicle component.

5 <Processes of Server and Client>

Next, a discussion on the processes of the server S and of the client C will be made focusing on the process of the server S. The user of the client C, when browsing the bulletin board 1 retained in the server S, accesses the server S by an operation
10 ~~of~~on the client C.

That is, the user ~~boots~~initializes the WWW browser by operating on the client C and, thereafter, specifies a URL (Uniform Resource Locator) linked to the homepage containing the bulletin board 1 of the server S. Then, ~~the~~ CPU 12 of the
15 client C transmits a request ~~for providing~~to access a Web page corresponding to the URL to the Internet N from the communication interface I/F 15. This request is received by the server S via the Internet N.

Then, the CPU 2 of the server S starts the server processes shown in FIG. 3. FIGS. 3 and 4 are flowcharts ~~showing~~depicting the processes (the processes in the server S) executed by the CPU 2 of the server S. Referring to FIG. 3, at step S1 the CPU 2 of the server S is ~~in a status of~~communicating with and accepting a variety of requests from the respective clients C (step S1).

25 Thereafter, the CPU 2, when accepting ~~the request given from the client C~~a client C request (step S1; Y), ~~judges~~determines whether or not the accepted request is a client C request of

~~the client C for accessing~~ to access the bulletin board 1 (which is a request for providing the Web page of the bulletin board 1) (step S2).

At ~~this time,~~ If the CPU 2, ~~when judging~~ determines that
5 the client C request is ~~thea~~ a request for providing to access the bulletin board 1 (step S2; Y), the CPU 2 provides the client C with the relevant Web page of the bulletin board 1 (step S3). To be more specific, the CPU 2 reads from the external storage device 4 the HTML file, the text file and the image file that
10 configure the relevant Web page, and transmits these files to the requesting client C ~~concerned~~ via the communication I/F 5. Thereafter, the CPU 2 returns the processing to step S1 and reverts to ~~the status of~~ accepting other requests.

The HTML file and other files transmitted from the server
15 S are received by the communication interface 15 of the relevant client C via the Internet N. Then, the CPU 12 of the client C creates, on the MM 13, image data ~~effor~~ for the Web page ~~on which the texts and images are laid out based on~~ the texts, images and descriptions ~~efin~~ in the received HTML file. The CPU 12 then
20 displays an image corresponding to the Web page image data on the screen of the display device 19.

The Web page of the bulletin board 1 is thereby displayed on the display device 19 of the client C, ~~whereby~~ allowing the user of the client C ~~is able to~~ browse the sales information
25 of the vehicle ~~component put up~~ components for sale on the bulletin board 1.

~~Herein~~ Here, it is assumed that the user of the client C

tries ~~is trying~~ to sell an ~~unnecessary~~ vehicle component (used parts: secondhand parts) ~~by~~ utilizing the bulletin board 17. ~~in~~ In this case, the user of the client C must ~~indicate~~ input a sales price ~~effor~~ for the ~~sales target~~ vehicle component (transaction target article) ~~vehicle component and thus put up~~ input the sales information (transaction information) thereof on the bulletin board 1.

At this time, the user, if unconfident of the sales price of the vehicle component and unsure to judge how long it ~~takes~~ a time to establish will take to complete the transaction, inputs ~~an indication~~ a request for being provided with support information for setting the sales price by ~~operating~~ operation of the KBD 20 and/or the PD 21. Then, the CPU 12 of the client C generates a message ~~of the request for providing the~~ requesting transaction price setting support information, and delivers the message to the server S from the communication interface I/F 15 via the Internet N.

The CPU 2 of the server S, when receiving the transaction price setting support information ~~providing request received~~ by from the communication interface 5, ~~makes~~ replies with a "YES" ~~judgement~~ response in step S4 ~~after through~~ if steps S1 and S2 have been completed, and advances the processing to step S6. ~~Whereas if~~ Otherwise the CPU 2 ~~makes~~ replies with a "NO" ~~judgement~~ response in step S4, and the CPU 2 executes other process corresponding to the request received in step S5, and loops the processing back to step S1.

When the processing proceeds to step S6, the CPU 2 transmits,

to the client C, ~~the data of an input screen 31 for inputting~~
the information needed for creating the support information,
as shown in Fig. 5. When the client C receives ~~the data on the~~
input screen 31, the CPU 12 displays the input screen 31 on the
5 display device 19 ~~on the basis of the same data.~~

FIG. 5 is ~~a diagram showing a display~~an example of the
input screen 31 displayed on the display device 19. Referring
to FIG. 5, the input screen 31 includes a component (parts) number
entry box 32 ~~effor~~for the vehicle component corresponding to the
10 ~~salestransaction~~target_article, an image displaying area 33
for displaying the image or video of the vehicle component, a
using period entry box 34 ~~effor~~for the vehicle component, a desired
sales price entry box 35, and a send button 36.

The component number entered in the entry box 32 involves
15 the use of, for instance, a number allocated beforehand to the
component by the provider (administrator) of the Web page of
the bulletin board 1. The image displaying area 33 displays
an image of the component scanned by, e.g., a camera type image
scanner (not shown) connected via an unillustrated interface
20 to the client C. ~~In this case one configuration, an input button~~
33a provided on the input screen 31 is used as a start button
~~effor~~for a scan operation of the image scanner.

In this respect, when the user of the client C specifies
a component image file (GIF (Graphics Interchange Format),
25 Windows BMP, JPEG (Joint Photographic Experts Group), etc.)
recorded on the external storage device 4, the component image
may also be displayed in the display area 33. In this case,

the component image file is created from a digital image photographed by, e.g., a digital camera ~~and/or~~ a digital video camera, and is recorded on the external storage device 4.

5 ~~A~~The time period (using period) ~~for~~ which the user has been using the vehicle component concerned, is entered, ~~on a~~for example in monthly ~~unit~~units in the entry box 34. The using period unit ~~for the using period may be~~ arbitrarily be set. ~~At~~o a year, date, hour and minute ~~may also be each adopted as a~~the unit for the using period. The sales price (desired sales price)
10 of the vehicle component, which is desired by the user, is entered in the entry box 35.

15 The user, when the input screen 31 is displayed on the display device 19, inputs the component image to the client C by manipulating the KBD 20 and/or the PD 21, and enters the component number, the using period and the desired sales price in the entry boxes 32, 34 and 35. Thereafter, when depressing the send button 36, by manipulating the KBD 20 or the PD 21, the CPU 12 transmits, to the server S, ~~pieces of the~~ identifying information of the vehicle component (the image and the component
20 number) ~~of the (transaction target) vehicle component~~, the quality evaluating information (using period) and the desired sales price that ~~are~~have been inputted via the input screen 31.

25 ~~On the other hand, the~~The CPU 2 of the server S, ~~when~~after transmitting ~~the data on the~~ input screen 31 to the client C in step S6, waits for the ~~information inputted via the~~ completed input screen 31 to be transmitted from the client C (step S7). Then, the CPU 2, ~~when~~after receiving the relevant information

from the client C (step S7; Y), advances the processing to step S8.

In step S8, the CPU 2 ~~refers to~~accesses the component database (DB) 23 stored in the external storage device 4 and
5 reads, from the component DB 23, ~~a record~~any records corresponding to the component number received from the client C into the main memory MM 3, and advances the processing to step S9.

FIG. 6 ~~is a diagram showing~~depicts an example of a data
10 structure of the component DB 23 shown in FIG. 2. Referring to FIG. 6, the component DB 23 retains at least one record consisting of a component number field, a component code field, a standard price field, a field of using condition A, a field of using condition B and a field of using limit (using condition
15 C).

The component number is a unique number allocated to the component by the administrator of the Web site ~~including the bulletin board 1~~, and is used as the identifying information (ID) of the component. The component code is a code ~~given~~assigned
20 by the administrator based on ~~a function of the vehicle component function~~ irrespective of a category of the vehicle, and is used as information for ~~showing a category of~~categorizing the component. The standard price is a standard retail price (a so-called fixed price) of the component. Note that the standard
25 price may also be a price accounting for a market price such as an actual retail price on the market.

Further, Each of the using conditions A, B and C is defined

as quality information indicating a quality corresponding to the using period of the vehicle component, and is set per component. The using limit indicates a using period that has expired when with the value of the component comes to becoming nothing (zero).

5 ~~The~~When the using period exceeds the using limit component of which the using period exceeds the using limit is dealt with as ~~what is~~ valueless. A record in the component DB 23 is created each time a transaction target ~~component to be put up~~ article is input and registered on the bulletin board 1 ~~is added and~~
10 ~~registered as~~ a for sale item.

In step S9, the CPU 2 of the server S compares the using period received from the client C with the using limit ~~in the record read into~~ from the MM 3, and ~~judges~~ determines whether the using period exceeds the using limit. ~~At this time, the CPU~~
15 ~~2, if~~ If the using period exceeds the using limit (step S9; Y), the CPU 2 advances the processing to step S10 and executes an error process. Namely, the CPU 2 creates an error message saying that the component the user desires to sell has exceeded its using period ~~exceeding the using limit~~ and is valueless
20 (impossible of being sold), and delivers this message to the client C. The error message is ~~thereby~~ displayed on the display device 19 of the client C. Thereafter, ~~when finishing the~~ the CPU 2 finishes the process in step S10, ~~the CPU 2 and~~ returns the processing to step S1.

25 By contrast, ~~the CPU 2, if~~ if the using period does not exceed the using limit (step S9; N), the CPU 2 obtains a using condition of the component (step S11). That is, the CPU 2 compares the

using period with each of the using period conditions A, B and C in the record, and specifies the using condition coincident with the input using period.

Next, the CPU 2 reads, into the MM 3, all of the records
5 with the corresponding ~~to the~~ component number received from the client and ~~to~~ with the corresponding using condition obtained in step S11 out of the transaction history database (DB) 24 stored in the external storage device 4 (step S12; see FIG. 144), and advances the processing to step S13.

10 FIG. 7 is ~~a diagram showing an example of a data structure~~ of the transaction history DB 24 shown in FIG. 2. Referring to FIG. 7, the transaction history DB 24 is a database stored with a history of the ~~transaction established~~ transactions initiated via the bulletin board 1. The transaction history
15 DB 24 consists of a single record or a plurality of records each composed of fields such as an advertisement number, a transaction number, a transaction date, a component number, a component code, a using condition, a using period, an advertisement starting date, a transaction price and an assessment rank. Each of the
20 records stored in the transaction history DB 24 corresponds to transaction achievement information according to the present invention.

The advertisement number is a unique number used as information for specifying the sales information (transaction
25 information) ~~put up~~ input and displayed (advertised) on the bulletin board 1. The transaction number is a unique number for specifying the ~~transaction established~~ transactions

initiated via the bulletin board 1. The transaction date is a year, month and date when the ~~transaction has been established~~ transactions were initiated, and the administrator of the bulletin board 1 ~~adequately~~ sets a date when the sales contract ~~has been established~~ was adequately completed or a date when the vehicle component ~~has been~~ was exchanged with for a value equivalent.

The advertisement starting date is a date when the sales information starts being available (advertised) on the bulletin board 1. The transaction price is ~~an~~ the amount of money set as the value equivalent to the component in the sales contract ~~off~~ for the vehicle component. The assessment rank indicates a quality based on a predetermined assessment standard set by the administrator of the bulletin board 1. Note that each time ~~the~~ a transaction is ~~established~~ initiated via the bulletin board 1, a new record of the sales transaction ~~established~~ initiated is registered in the transaction history DB 24 as one of the other processes in step S5.

In step S13, the CPU 2 obtains an average number of bid tender days during which bids for the component in a price range (price zone) inclusive of the desired sales price have been received from the clients C, ~~by~~ using single record or a plurality of records (refer as "first extraction record(s)") ~~read~~ extracted from the transaction history DB 24 in step S12.

The average number of bid tender days is a number of days required for ~~establishing~~ initiating the transaction of the transaction target ~~component~~ article since the transaction information of

the transaction target article was advertised on the bulletin board 1, and indicates ~~a required~~ the period of time required for initiating the transaction. ~~The time which the transaction has been established is~~ agreement time may be selected from, for
5 example, ~~at the time when the purchaser showed~~ conveyed an intention ~~of to~~ purchase to the seller, ~~at the time when the intention of purchase~~ the purchaser was conveyed to the administrator of the bulletin board 1, ~~and on the time when the component was exchanged with the value equivalent,~~ ~~may properly be selected.~~

10 To describe step S13 in depth, the CPU 2 ~~refers to~~ accesses the price range table 25 stored in the external storage device 4, and ~~judges~~ determines which price range the desired sales price falls within in the price range table 25 ~~the desired sales price concerned falls within.~~

15 FIG. 8 is ~~a diagram showing an example of the price range table 25 shown in FIG. 2. As shown in FIG. 8, the~~ a price range table 25 is provided for every component number ~~in this example.~~ The price range table 25 may, however, only be provided for every component code.

20 Further, the price range table 25 in this example provides five price ranges such as 0 ~ 5000 yen, 5001 ~ 8000 yen, 8001 ~ 10000 yen, 10001 ~ 15000 yen and 15001 ~ 99999 yen. The CPU 2 compares the desired sales price with each of the price ranges, thereby ~~drawing out~~ determining the price range inclusive of the
25 desired sales price.

Note that the number of the price ranges and a size of each price range may be properly set. Further, as a substitute

for using the price range table 25, a minimum price and a maximum price that define a price range may also be ~~arithmetically-~~ calculated to set different price ranges, such as setting a range for every 2000 yen or 3000 yen and so on.

5 ~~The CPU 2, when obtaining~~After determining the price range embracing the desired sales price, the CPU 2 extracts a ~~record~~records in which the transaction prices falls within the price range as a second extraction record from a first extraction record. Subsequently, the CPU 2 subtracts the advertisement
10 starting date from the transaction date with respect to each of the second extraction records, and divide a sum of the subtracted results by the number of the second extraction records, thereby obtaining an average number of bid tender days.

 Thereafter, the CPU 2 creates a message containing the
15 using condition obtained in step S11 and the average number of bid tender days obtained in step S13, and delivers the created message to the relevant client C (step S14). Thereafter, the CPU 2 advances the processing to step S15.

~~The client C, when~~When receiving the message delivered
20 from the server S, the client C displays the received message on the display device 19. FIG. 9 is ~~a diagram showing a display an~~ example of a message 37 displayed to the sales applicant that corresponds to the process in step S13. Thus, the ~~component~~ sales applicant (the user of the client C) is provided with the
25 using condition as the quality information of the ~~sale~~transaction target component ~~article~~ and the average number of bid tender days in the price range inclusive of the desired

sales price as pieces of support information for setting the sales price.

In step S15, the CPU 2 obtains the average number of bid tender days for every price range and subsequently obtains an
5 average transaction price for every price range (step S16). The processes in steps S15 and S16 will hereinafter be explained in greater ~~detailed~~detail.

The CPU 2 creates a first collection table based on the price range table 25 referred to in step S13 in the main memory
10 MM 3. FIG. 10 is an ~~explanatory diagram showing~~example of a first collection table 38. The first collection table 38 is a table for collecting the number of records, the number of days and the transaction price, ~~which correspond~~corresponding to each of the price ranges retained in the price range table 25. When
15 the first collection table 38 is created, the number of records, the number of days and the transaction price, which correspond to each of the price ranges, are each set to zero as an initial value (see FIG. 10).

The CPU 2, when creating the first collection table 38,
20 with respect to a certain first extraction record, refers to the price range inclusive of the transaction price thereof, and increments [the number of records] in the first collection table 38 by "1" ("1" is added to the number of records), ~~which~~
~~corresponds~~corresponding to the relevant price range.

25 Subsequently, the CPU 2 subtracts the advertisement starting date from the transaction date in the first extraction record, and adds a value of this subtracted result to [the number of

days] corresponding to the relevant price range. Further, the CPU 2 adds the transaction price in the first extraction record to [the price] corresponding to the relevant price range. The CPU 2 executes the processes given above with respect to all
5 the first extraction records.

Thereafter, the CPU 2, when finishing the above processes for all the first extraction records, divides a value of each [number of days] and a value of each [price] retained in the first collection table 38 by [the number of records]
10 corresponding thereto. Thus, the CPU 2 obtains an average value (an average number of bid tender days) of [the number of days], and also an average value (an average transaction price) of the [price].

Thereafter, the CPU 2 creates a message containing the
15 average number of bid tender days and the average transaction price that have thus been obtained, and transmits the created message to the relevant client C (step S17). After this process, the CPU 2 advances the processing to step S18.

~~The client C, when~~After receiving the message delivered
20 from the server S, the client C displays this message on the display device 19. FIG. 11 is ~~a diagram showing a display~~an example of a message 39 to the sales applicant, ~~which~~
~~corresponds~~corresponding to the processes in steps S15 and S16. The user of the client C is thus provided with the using condition
25 corresponding to the quality information on the sale transaction target article (vehicle component) as ~~the~~ support information for setting the sales price. The user of the client C is also

provided with the average number of bid tender days and the average transaction price for every price range.

In step S18, the CPU 2 obtains the average number of bid tender days at an interval of a predetermined advertising period.

5 Subsequently, the CPU 2 obtains the average transaction price days at ~~an interval of a predetermined advertising period (S19)~~ interval. The following is the details of steps S18 and S19.

The CPU 2 creates a second collection table 40 based on a predetermined advertising period (e.g., 10 days, 20 days and
10 30 days) in the MM 3. FIG. 12 is an ~~explanatory diagram showing~~ the example of a second collection table 40. The second collection table 40 collects and retains the number of records, the number of days and the transaction prices corresponding to each ~~effor~~ for the predetermined advertising periods. When the
15 second collection table 40 is created, the number of records, the number of days and the transaction prices corresponding to each of the predetermined advertising periods, are each set to zero as an initial value (see FIG. 12).

~~The CPU 2, when~~ When creating the second collection table
20 40, with respect to a certain first extraction record, the CPU 2 increments [the number of records] in the second collection table 40 by "1" ("1" is added to the number of records), ~~which~~ corresponds ~~corresponding~~ to the advertising period containing the number of days obtained by subtracting the advertisement
25 starting date from the transaction date. Subsequently, the CPU 2 subtracts the advertisement starting date from the transaction date in the first extraction record, and adds a value of this

subtracted result to [the number of days] corresponding to the relevant ~~advertising~~advertising period. Further, the CPU 2 adds the transaction price in the first extraction record to [the price] corresponding to the relevant advertising period. The
5 CPU 2 executes the processes given above with respect to all the first extraction records.

Thereafter, the CPU 2, when finishing the above processes for all the first extraction records, divides a value of each [number of days] and a value of each [price] retained in the
10 second collection table 40 by [the number of records] corresponding thereto. Thus, the CPU 2 obtains an average value (an average number of bid tender days) of [the number of days], and also an average value (an average transaction price) of the [price].

15 Thereafter, the CPU 2 creates a message containing the average number of bid tender days and the average transaction price that have thus been obtained, and transmits this message to the relevant client C (step S20). After this process, the CPU 2 loops the processing back to step S1.

20 ~~The client C, when~~When receiving the message delivered from the server S, the client C displays the received message on the display device 19. FIG. 13 is a ~~diagram showing a display~~an example of a message 41 displayed to the sales applicant, which ~~corresponds~~corresponding to the processes in steps S18 and S19.

25 The component sales applicant (the user of the client C) is thus provided with the using condition corresponding to the quality information on the ~~sales~~transaction target article (vehicle

component) ~~as the~~ support information for setting the sales price.
The user of the client C is also provided with the average number
of bid tender days and the average transaction price at ~~the~~
~~interval of the~~ predetermined advertising period interval.

5 Note that the first embodiment has given the example in
which the predetermined advertising period is set to less than
10 days, 11 ~ 20 days, 21 ~ 30 days, and 31 days or longer, however,
a length of the advertising period may adequately set to any
desired value.

10 <Operation in First Embodiment>

 According to the first embodiment, if the user of the client
C wishes to sell ~~the~~ a vehicle component via the bulletin board
1, the client C ~~gives the server S the request for the~~ requests
support information for setting the price of the vehicle
15 component from the server S. The client C is given the input
screen 31 ~~for the server S to~~ input the information (the
information for identifying the transaction target, and the
quality evaluation information) needed for providing the support
information.

20 Then, the client C supplies the server S with the
identifying information (the image and the component number)
of the transaction target article (vehicle component), the
quality evaluation information (the using period) ~~of~~ for this
component and the desired sales price via the input screen 31.

25 Then, the server S evaluates the quality (the using condition)
of the component on the basis of the identifying information
of the component and the quality evaluation information (the

using period) (step S11).

Subsequently, the server S obtains the average number of bid tender days in the price range embracing the desired sales price ~~by use of~~, using the respective items of information
5 received from the client C and the transaction achievement information (the records in the transaction history DB 24) of the sales conducted via the bulletin board 1 (step S13). Then, the server S supplies the client C with the using condition and the average number of bid tender days as ~~the support information~~
10 (step S14).

The support information is displayed on the display device 19 of the client C. The user (the sales applicant) of the client C ~~is able to know~~ provided the quality of the sales target component and ~~also to know from~~ the average number of bid tender days (how
15 long it takes a time to catch the took to find a purchaser of for the relevant component at the desired sales price).

Moreover, the server S obtains the average number of bid tender days and the average transaction price for every price range with respect to the ~~sales transaction target component~~
20 article (steps S15 and S16), and supplies ~~these pieces of this~~ data to the client C (step S17). The sales applicant is thereby ~~able to know how soon the purchaser will be found out by recognizing~~ able to determine which price range is proper for the ~~sales transaction target component~~ article and how soon a purchaser
25 will be located in that price range.

Further, the server S obtains the average number of bid tender days and the average transaction price at ~~the interval~~

~~of predetermined~~ advertising period intervals with respect to
the ~~sales transaction target component article~~ (steps S18 and
S19), and supplies ~~these pieces of this~~ data to the client C (step
S20). With this operation, the sales applicant ~~is able to know~~
5 ~~a relation~~ can determine the relationship between the length of
the advertising period and the transaction price ~~with respect~~
~~to for~~ the ~~sales transaction target component~~ article.

As discussed above, the sales applicant can receive the
quality ~~information of for the sales transaction target component~~
10 article by receiving ~~the information about the using condition~~
information as the support information, and can utilize these
pieces of information as a key ~~for factors in~~ setting the ~~prices~~
price of the vehicle component concerned. Further, the sales
applicant receives ~~the information on the transaction~~
15 ~~achievements~~ (the average number of bid tender days and the
average ~~transaction price as statistic values~~) ~~with respect to for~~
the component the user wants to sell ~~and the component of which,~~
by the component number and ~~the using condition are the same~~
(the identifying information and the quality information are
20 the same) as ~~the support information~~. The sales applicant is
thereby capable of predicting how soon the purchaser can be ~~found~~
out located by knowing ~~how much the affect of~~ the price ~~of set~~
for the sales transaction target component is set article.

Accordingly, the sales applicant is capable of setting
25 the desired sale price of the sales target component to a price
that leads to a desirable result (such as being sold higher and
sooner) to the sales applicant. Namely, the sales applicant

is able to properly set the price. The administrator of the bulletin board 1 is capable of increasing the number of users of the bulletin board 1 and of improving the profits, in the case of collecting the fee for using the bulletin board 1 from
5 the user thereof, ~~improving the profits~~.

Incidentally, ~~the contrivance in the first embodiment is that, the processing result~~ results in step S13, ~~the processing results in steps S15 and S16 and the processing results in steps S18 and S19, are individually transmitted to the client C. The~~
10 Alternately, the server S may, however, transmit to the client C one message into to the client C which the includes messages 37, 39 and 41 are integrated just when finishing the process in step S19.

Further, in the first embodiment, the process in step S13,
15 the processes in steps S15, S16 and the processes in steps S18, S19 are described being executed in series to the after receiving a request for providing one item of support information. The client C may, however, request only ~~any one~~ of the processes described above.

20 Moreover, the process in step S13, the processes in steps S15, S16 and the processes in steps S18, S19 may take any sequence. Further, the process in step S15 and the process in step S16 may be reversed in order, and the process in step S18 and the process in step S19 may also be reversed in order.

25 Furthermore, the first embodiment ~~takes such a mode that describes the server S provides as providing the support information to the client C. However, the external storage~~

device 14 of the client C ~~is stored with~~ can store the same content
as ~~what~~ information as is stored in the external storage device
4, and the support request ~~is inputted from~~ input via the KBD
20 or the PD 21, ~~in which case~~ may be answered by the CPU 12
5 of the client C, which may execute the processes shown in FIGS.
3 and 4, and the messages 37, 39, 41 may be displayed on the
display device 19. Namely, the present invention may be
~~actualized by~~ contained with a stand-alone computer. This is
the same with second and third embodiments.

10 [Second Embodiment]

Next, a second embodiment of the present invention will
be discussed. The second embodiment ~~has the points common~~
~~to~~ contains aspects and features similar to the first embodiment.
Hence, the discussion will concentrate on ~~different points~~
15 differences therebetween.

The processes of the server S and the client C in the second
embodiment are the same as those in the first embodiment, as
far as the steps S1 ~ S5 shown in FIG. 3 are concerned. In the
second embodiment, however, an input screen transmitted to the
20 client C from the CPU in step S6 is different from the input
screen in the first embodiment.

FIG. 19 is a process flowchart ~~showing the processes of~~ for
the server S (the processes of the CPU 2) in the second embodiment.
In the second embodiment, the CPU 2 transmits ~~display data on~~
25 ~~an input screen 31A in place of the input screen 31 to the client~~
C in step S106 corresponding to step S6, as shown in FIG. 21.

FIG. 14 is a ~~diagram showing a display example on an example~~

of the input screen 31A in the second embodiment. As shown in FIG. 14, the input screen 31A is different from the input screen (see FIG. 5) in ~~terms of the following point. That is, the~~ that input screen 31A does not include the using period entry box 34 and ~~is provided with~~ input screen 31A substitutes a [Next] button as ~~a substitute~~ 43 for the transmission button 36.

When the client C receives ~~the display data on the input screen 31A~~ and displays the input screen 31A on the display device 19, the user of the client C inputs an image, a component number and a desired price by the same method as ~~that used~~ in the first embodiment. Then, the [Next] button 43 is depressed by manipulating the KBD 20 or the PD 21.

Then, the CPU 12 of the client C transmits, to the server S, a request for ~~being given the display data on a~~ second input screen 44 (see FIG. 16) which contain at least a component number of the ~~sales transaction target vehicle component~~ article. The Upon receiving this request (step S107; Y), the CPU 2 of the server S, ~~upon receiving this request (step S107; Y), refers to~~ accesses the component database DB 23 and reads from the component DB 23 a component code corresponding to the component number received from the client C into the MM 3 (step S108).

Next, the CPU 2 refers to the assessment item database DB 26 stored in the external storage device 4 ~~and corresponding to the component code read into the MM 3,~~ and reads assessment check items into the MM 3 corresponding to the component code read into the MM 3, thereby creating display data (based on an HTML format etc) on the second input screen 33 (step S109).

FIG. 15 is a ~~diagram showing an example of a data structure~~
of the assessment item DB 26 shown in FIG. 2. The assessment
item DB 26 is provided for, e.g., every component code. The
assessment item DB 26 retains information on the assessment items
5 of an ~~assessment target~~a component and scores (points)
corresponding to answers to questions about the assessment items
in a structure suited to a layout on the second input screen
44. In the example shown in FIG. 15, the assessment items in
the assessment item DB 26 are a using period, cleaning of ○
10 ○ portion, polishing of ◇◇ portion, rust, scraped flaw,
scratches and a recess.

~~The CPU 2, when~~When creating the display data on the second
input screen 44, the CPU 2 transmits the display data to the
client C (step S110). ~~The client C, upon~~Upon receiving the
15 display data, the client C displays the second input screen 44
based on the display data on the display device 19.

FIG. 16 is a ~~diagram showing a display~~an example ~~on~~of
the second input screen 44. Referring to FIG. 16, the second
input screen 44 includes the using period entry box 34, an answer
20 box 44a to the questions about the assessment items retained
in the assessment item DB 26, and the send button 36. Plural
concepts of answers to the questions about the assessment items
are displayed in the answer box 44a, and a check box containing
check circles for indicating the respective answers is provided.

25 The user of the client C enters the using period in the
entry box 34 and checks the check circle corresponding to the
answer ~~in the check box with respect~~corresponding to the question

about each assessment item, thereby answering the question. Then, when finishing ~~picking up the answers to~~ answering all the questions, the user depresses the send button 36.

Then, the CPU 12 of the client C transmits, to the server
5 S, the image, the component number and the desired sales price that have been ~~inputted~~ input on the input screen 31A, and the answers to the questions about the using period and other assessment items that have been ~~inputted~~ input on the second input screen 44.

10 ~~The CPU 12 of the server S, when~~ After receiving the respective pieces of information via the communication interface I/F 5 (step S111), as in the first embodiment, ~~judges the CPU 12 of the server S determines~~ whether or not the using period exceeds the using limit (step S112). If over the using limit
15 (step S112; Y), the error process (step S113; the same as step S10) previously described above is executed.

~~Whereas if~~ If the using period does not exceed the using limit (which does not correspond to the using condition C) (step S112; N), the CPU 2 refers again to the assessment item DB 26
20 used for creating the display data on the second input screen 44, and calculates assessment scores (points) ~~in accordance with~~ based on the answers to the questions, which have been received from the client C (step S114). For ~~instance~~ example, the CPU 2 sets a base of the assessment score to 100, and adds or subtracts
25 a score corresponding to the answer to the question to or from the base score 100.

Next, the CPU 2 obtains an assessment rank ~~by use of~~ using

the calculated result of the assessment score (step S115). That is, the CPU 2 refers to the assessment rank table 27 stored in the external storage device 4 and reads therefrom the assessment rank corresponding to the calculated result into the MM 3.

5 FIG. 17 is an ~~explanatory diagram showing the example of~~
an assessment rank table 27 shown in FIG. 2. As shown in FIG. 17, the assessment rank table 27 is stored with ranges of the assessment scores (points) and the assessment ranks that correspond to each ~~other~~range. Note that the assessment rank
10 is set in five categories A2, A1, B2, B1 and C in this example, however, the (number of) categories of the assessment ranks may be ~~adequately set~~ as needed.

Next, the CPU 2 obtains the average number of bid tender days and the average transaction price ~~by use of~~using the
15 assessment rank acquired (step S116). To be specific, the CPU 2 extracts (reads into the MM 3) all the records ~~as the third extraction records~~ having the component number received from the client C and the assessment rank acquired as third extraction records.

20 Subsequently, ~~with respect to~~from the extracted third extraction records, the CPU 2 obtains the average number of bid tender days and the average transaction price per price range ~~by use of~~using the price range table 25 and the first collection table 38 ~~by and~~ the same method as steps S15 and S16 in the first
25 embodiment.

Thereafter, the CPU 2 creates a message containing the acquired assessment rank, the assessment score, the average

number of bid tender days and the average transaction price per price range, and delivers this message to the relevant client C (step S117).

The client C thereby receives the ~~same message~~, and
5 displays this message ~~is displayed on the display device 19.~~
FIG. 18 is a ~~diagram showing a display~~an example of a message
46 displayed on the display device 19. As shown in FIG. 18,
the assessment score and the assessment rank of the ~~sales-~~
transaction target component-article are displayed to the user
10 (sales applicant) of the client C. Further, the average number
of bid tender days (the average advertising period) and the
average transaction prices for every price range with respect
to the ~~vehicle components~~transaction target article having the
above assessment rank and the same component number, are also
15 displayed to the user.

Note that the average number of bid tender days in the price range inclusive of the desired sales price may be obtained based on the assessment rank by substantially the same method as step S13 in the first embodiment, then transmitted to the
20 client C and displayed on the display device 19 (the average number of bid tender days may be provided as ~~the support~~
~~information to the sales applicant)~~ also in the second embodiment.

Further, the average number of bid tender days and the average transaction price at the ~~interval of the predetermined~~
25 advertising period interval may be obtained based on the assessment rank using the second collection table 40 by substantially the same method as steps S18 and S19 in the first

embodiment, and then transmitted to the client C and displayed on the display device 19 ~~also~~ in the second embodiment.

In accordance with the second embodiment also, the sales applicant is able to set a proper price ~~ef~~ for the transaction target ~~component~~ article with reference to the support information (the assessment rank, the average number of bid tender days and the average transaction price). Further, in the second embodiment, the quality of the component is evaluated based on the plurality of assessment items (assessment standards) including the using period. Thus, in the second embodiment, the quality of the ~~sales transaction~~ target ~~component~~ article is examined in greater details than in the first embodiment, and hence a gap between the condition of the ~~sales transaction~~ target ~~component~~ article and the transaction price can be made smaller than in the first embodiment.

Note that while the assessment rank is defined as one field of the record in the transaction history database DB 24, in the second embodiment of the present invention, the assessment item database DB 26 and the assessment rank table 27, ~~take use database structures used in the transaction system according to the second embodiment but~~ that are not used in the first embodiment. Therefore, ~~if embodied in the transaction system according to~~ in the first embodiment, the assessment ranks in the transaction history DB 24, the assessment item DB 26 and the assessment rank table 27 are unnecessary.

Furthermore, according to the second embodiment, the assessments about the rust, scraped flaw, scratches and recess

recesses are made based on the answers of the sales applicant.
~~Instead of this mode~~Alternatively, these assessment items are
removed from the assessment item DB 26 and the second input screen
~~44 as well, and, as a substitute for using these assessment items,~~
5 the assessment score (points) may be calculated ~~by use of~~using
the vehicle component image received via the second input screen
44. In this ~~ease~~embodiment, the component image is displayed
on the display device 19, ~~then and~~ the operator of the server
S may input a score corresponding to a result of the assessment
10 ~~to the server S, and/or~~ the CPU 2 may execute a predetermined
process of the image in the server S, whereby the assessment
score can be automatically calculated.

[Third Embodiment]

Next, a third embodiment of the present invention will
15 be discussed. The third embodiment ~~has points common~~contains
aspects and features similar to the first embodiment, and the
discussion will therefore be focused on ~~different points~~the
differences from the first embodiment.

FIG. 20 is a flowchart showing processes (of the CPU 2)
20 of the server S in the third embodiment. The processes of the
server S and the client C in the third embodiment are the same
as those in the first embodiment as far as steps S1 ~ S5 shown
in FIG. 3 are concerned. In the third embodiment, however, an
input screen transmitted to the client C in step S6 is different
25 from the input screen in the first embodiment.

In accordance with the third embodiment, in the client
C, a type and a frame number of the vehicle from which the sales

transaction target ~~component~~ article is taken, are inputted
to input on the input screen. Therefore, ~~in~~ In the third
embodiment, the ~~display~~ data on an input screen 31B ~~are~~ is
transmitted to the client C in step S206, corresponding to step
5 S6.

FIG. 21 is a ~~diagram showing a display~~ an example ~~on~~ of
the input screen 31B in the third embodiment. As shown in FIG.
21, the input screen 31B is different from the input screen 31
(see FIG. 5) in ~~terms of the following points.~~ To be specific,
10 ~~the input screen 31B is what a~~ that vehicle type entry box 48
and a frame number input box 49 are added to the configuration
of the input screen 31.

When the client C receives ~~the display data on the input~~
~~screen 31B~~ and displays ~~the~~ input screen 31B on the display device
15 19, the user of the client C inputs an image, a component number
and a desired price by the same method as the first embodiment.
At this time, the user is also able to selectively input data
for either the using period ~~and a couple of~~, the vehicle type
and the frame number .

20 Namely, the input screen 31B is ~~contrived~~ configured so
that if ~~one of~~ either the using period and ~~the couple of~~ for the
vehicle type and the frame number ~~is inputted~~ are input, the other
can not be ~~inputted~~ input. Then, ~~if~~ If neither the using period
nor ~~the couple of~~ the vehicle type and the frame number ~~is inputted~~,
25 ~~a contrivance is that~~ are input, input screen 31b is configured
such that the data can not be transmitted to the server S even
when depressing the send button 36.

~~The user, when~~When finishing the data entry process on the input screen 31B, the user depresses the send button 36 by manipulating the KBD 20 or the PD 21. ~~Then, the~~The CPU 12 of the client C transmits the image, the component number, the
5 desired price and the using period (or the vehicle type and the frame number) to the server S.

~~The CPU 2 of the server S, when~~When receiving the above information from the client C (step S207), the CPU 2 of the server S determines~~judges~~ whether or not the information received
10 contains the vehicle type and the frame number of the vehicle (step S208). At this time, if ~~containing the received data~~contains the vehicle type and the frame number (step S208; YES) the CPU 2 advances the processing to S209. ~~Whereas~~Conversely, if the vehicle type and the frame number are not contained (step
15 S208; NO) in the received data, the CPU 2 ~~judges~~determines that the information received from the client C ~~contains not~~does not contain the vehicle type and the frame number but the using period, and diverts the processing to step S8 in FIG. 3. ~~The processes after this are~~After diverting to step S8, the subsequent
20 processing is the same as those ~~indiscussed under~~ the first embodiment.

When the processing proceeds to step S209, the CPU 2 searches the vehicle database DB 29 stored in the external storage device 4 ~~by use of~~using the vehicle type and the frame number,
25 and thus ~~judges~~determines whether or not a record containing the vehicle type and the frame number is stored therein.

FIG. 22 is an ~~explanatory diagram showing~~example of the

vehicle DB 29 shown in FIG. 2. As shown in FIG. 22, the vehicle DB 29 retains records each consisting of fields such as a vehicle type, a frame number and an operation starting date.

~~The CPU 2, if~~ If a record containing the type and the frame number does not exist in the vehicle DB 29 (step S209; NO), ~~judges~~ the CPU 2 determines that the information received from the client C contains the using period, and diverts the processing to S8 in FIG. 3. ~~The~~ After diverting to S8, the subsequent processes thereafter are the same as those ~~indiscussed under~~ the first embodiment. ~~Whereas if the~~ If a record containing the vehicle type and the frame number exists in the vehicle DB 29 (step S209; YES), the CPU 2 reads the relevant record from the vehicle DB 29 into the MM 3.

Next, the CPU 2 obtains a component code corresponding to the component number received from the client C (step S211). This process is executed in such a way that the CPU 2 searches an unillustrated component number/component code conversion table ~~stored beforehand~~ in the external storage device 4 by ~~use of~~ use of the component number. Note that the CPU 2 may also obtain the component code by searching the component database DB 23.

Next, the CPU 2 ~~judges~~ determines whether or not a record containing the component code, the vehicle type and the frame number is stored in the maintenance/repair history database DB 28 stored in the external storage device 4 (step S212).

FIG. 23 is an ~~explanatory diagram~~ example of the maintenance/repair history DB 28 shown in FIG. 2. The

maintenance/repair history DB 28 retains a single or plurality of records each consisting of fields such as a vehicle type, a frame number, a work date, a component code and a work classification. The work classification field takes a value of any one of [exchange], [cleaning], [plate working] and [coating] in accordance with the type of the maintenance or the repair (restoration).

The CPU 2, ~~if~~ If the record containing the component code, the vehicle type and the frame number is not stored in the maintenance/repair history DB 28 (step S212; NO), The CPU 2 advances the processing to step S217. If a record is stored therein (step S212; YES), the CPU 2 ~~makes~~ advances the processing ~~proceeds~~ to step S213, and reads that record into the main memory MM 3.

Subsequently, the CPU 2 ~~judges~~ determines whether or not the work classification in the record read into the MM 3 is [exchange] (step S214). If the work classification is [exchange], the processing proceeds to step S216. ~~Whereas if not~~ If the work classification is not [exchange], the processing goes forward to step ~~S217~~ S215.

In step S215, the CPU 2 ~~judges~~ determines whether or not the work classification in the record in the maintenance/repair history DB 28 that has been read into the MM3 is [cleaning]. If the work classification is [cleaning], the processing proceeds to step S216. ~~Whereas if not~~ If the work classification is not [cleaning], the processing diverts to step S217.

In step S216, the CPU 2 obtains, as the using period, a

period extending from [work date] in the record in the maintenance/repair history DB 28 that has been read into the MM 3 up to the present time. Thereafter, the CPU 2 loops the processing back to step S8 in FIG. 3, and executes the same processes as those in the first embodiment.

In step S217, the CPU 2 obtains, as the using period, a period extending from [operation starting date] in the record in the vehicle DB 29 that has been read into the MM 3 in step S210 up to the present time, and loops the processing back to step S8. Thereafter, the CPU 2 executes the same processes as those in the first embodiment.

According to the third embodiment, the ~~sales transaction~~ target ~~component~~ articles of the sales applicant is removed from the vehicle, and the same component is fitted to the vehicle in a maintenance and repair shop related to the administrator of the bulletin board 1, in which case the type and the frame number of the vehicle are entered on the input screen 31b instead of the using period, and the using period is automatically set based on these pieces of data. Accordingly, under above conditions, even if the sales applicant forgets the using period of the component, the using condition of the component can be determined based on the precise using period.

Note that the maintenance/repair history DB 28, the vehicle DB 29 shown in FIG. 2, the component number/component code conversion table (not shown) and the input screen 31B, are used in only the third embodiment and may not be therefore provided if the transaction system in the first embodiment is carried

out. Further, the first through third embodiments may be properly combined within the scope of the present invention without departing from the purpose of the present invention.



APPENDIX D - ANNOTATED DRAWING SHEETS

FIG. 2

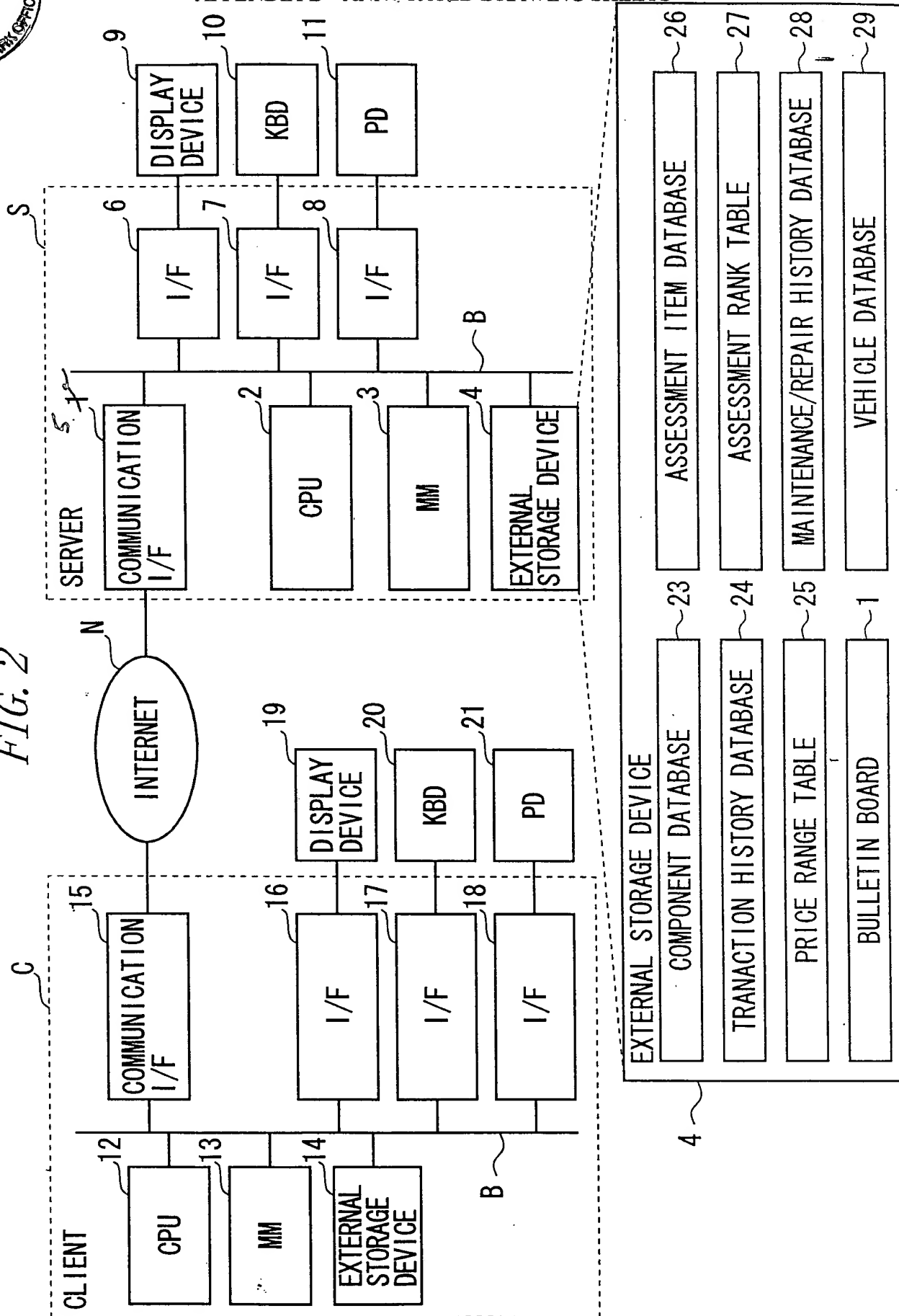




FIG. 3

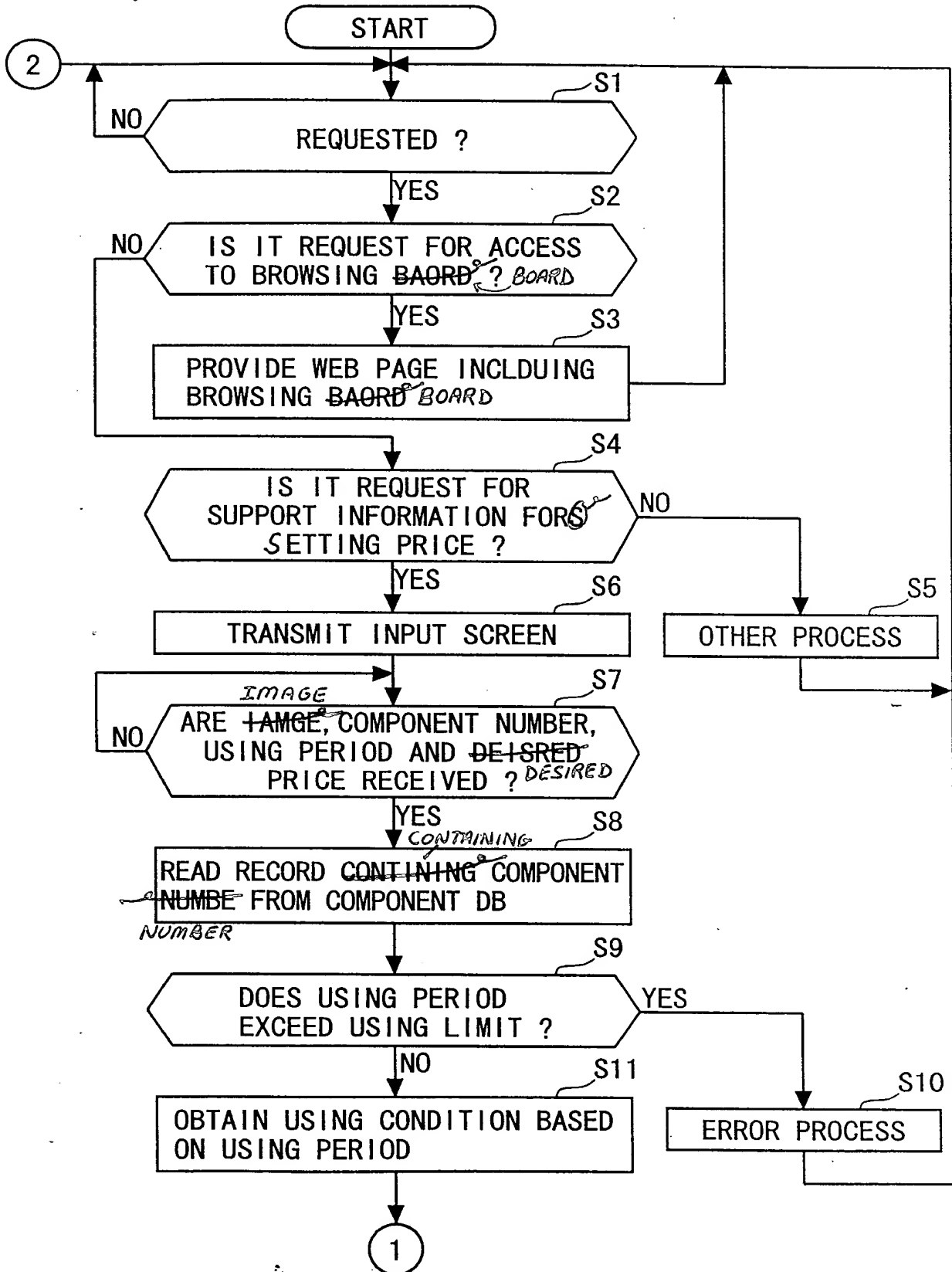




FIG. 4

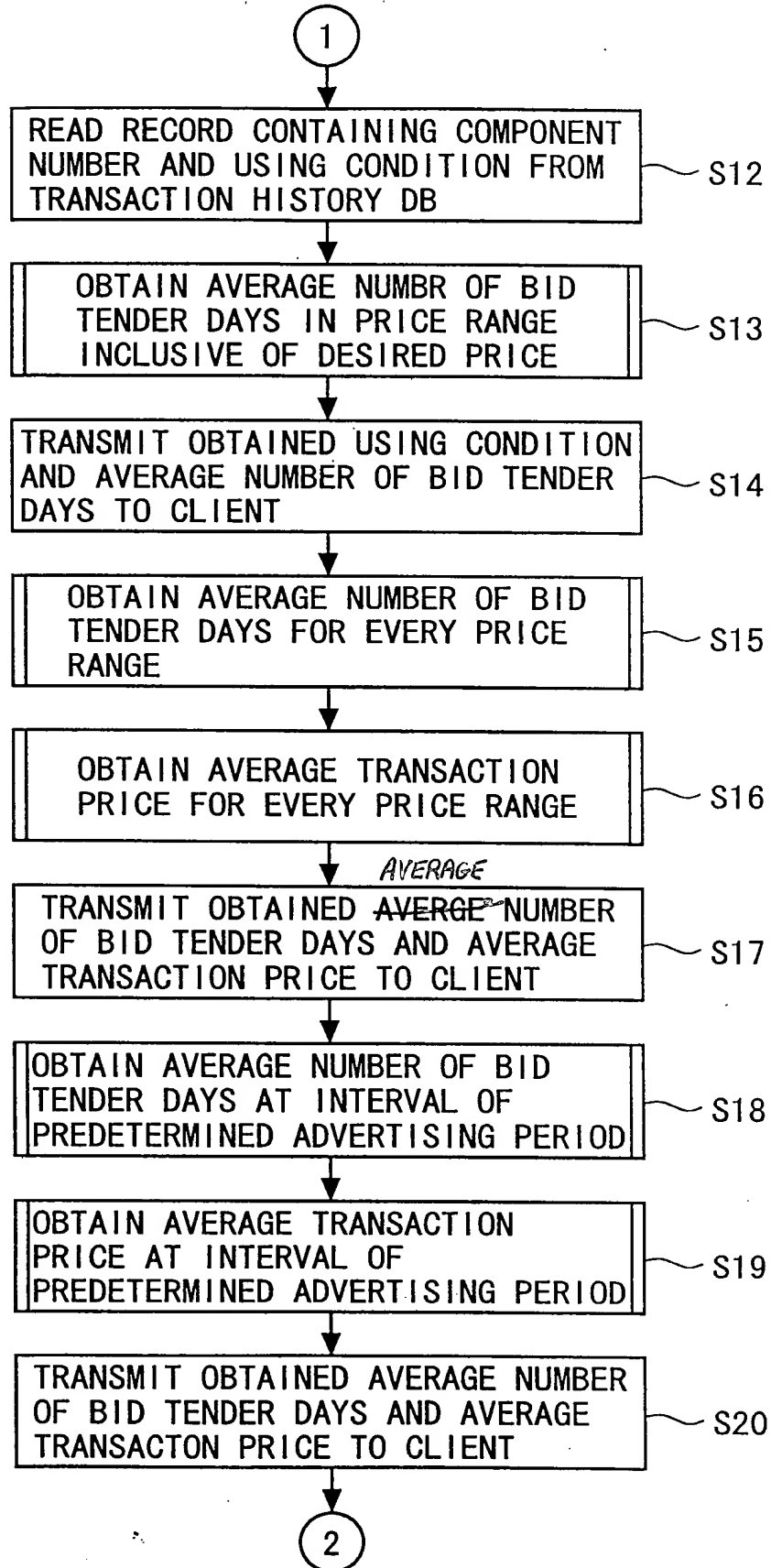




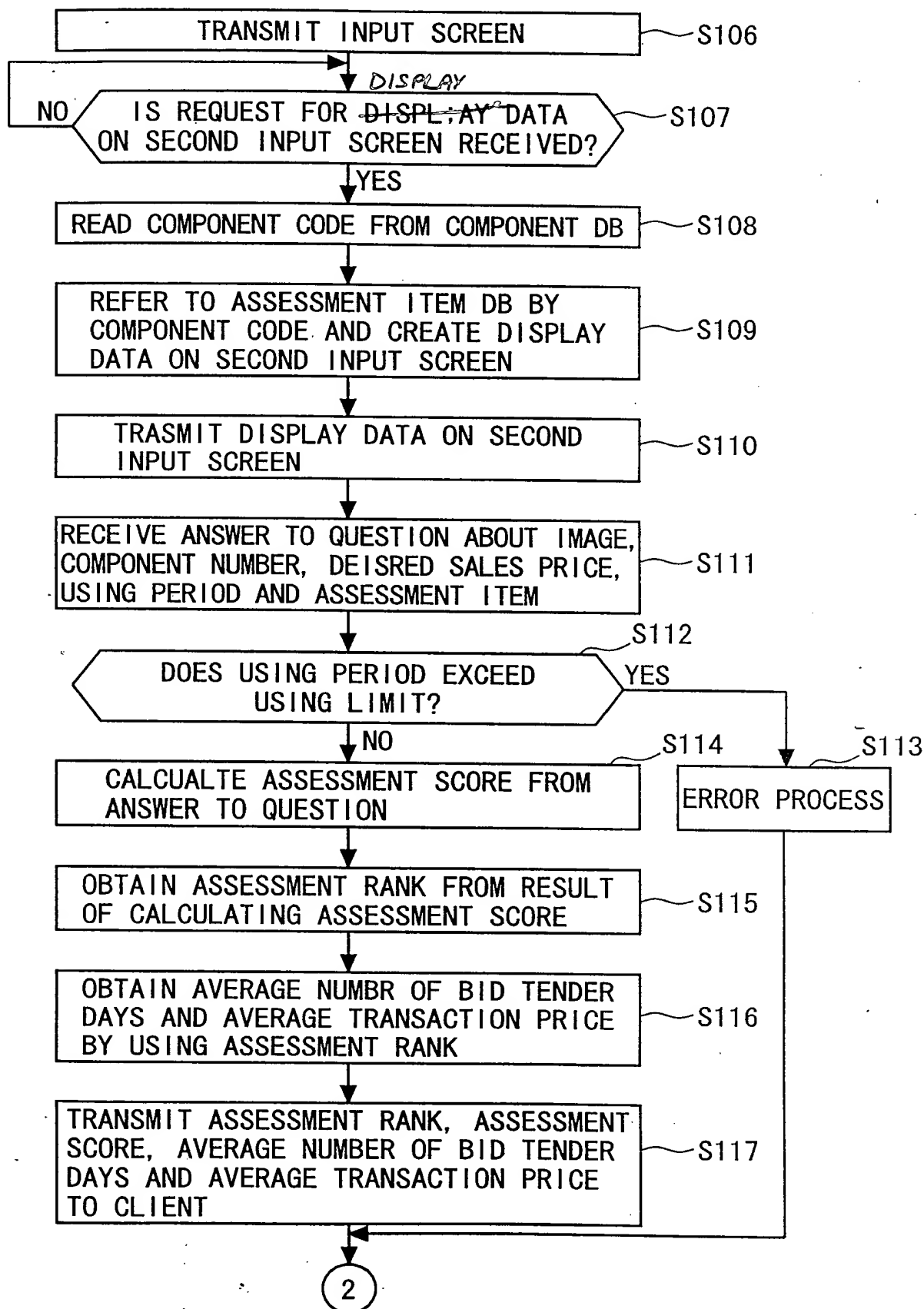
FIG. 12

40: SECOND COLLECTION TABLE

ADVERTISING PERIOD	NUMBER OF RECORDS	NUMBER OF DAYS	PRICE PRICE (YEN)
WITHIN 10 DAYS	0	0	0
WITHIN 11~20 DAYS	0	0	0
WITHIN 21~30 DAYS	0	0	0
LONGER THAN 31 DAYS	0	0	0



FIG. 19



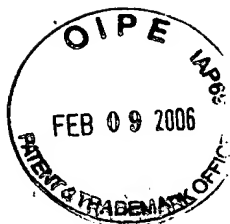


FIG. 20

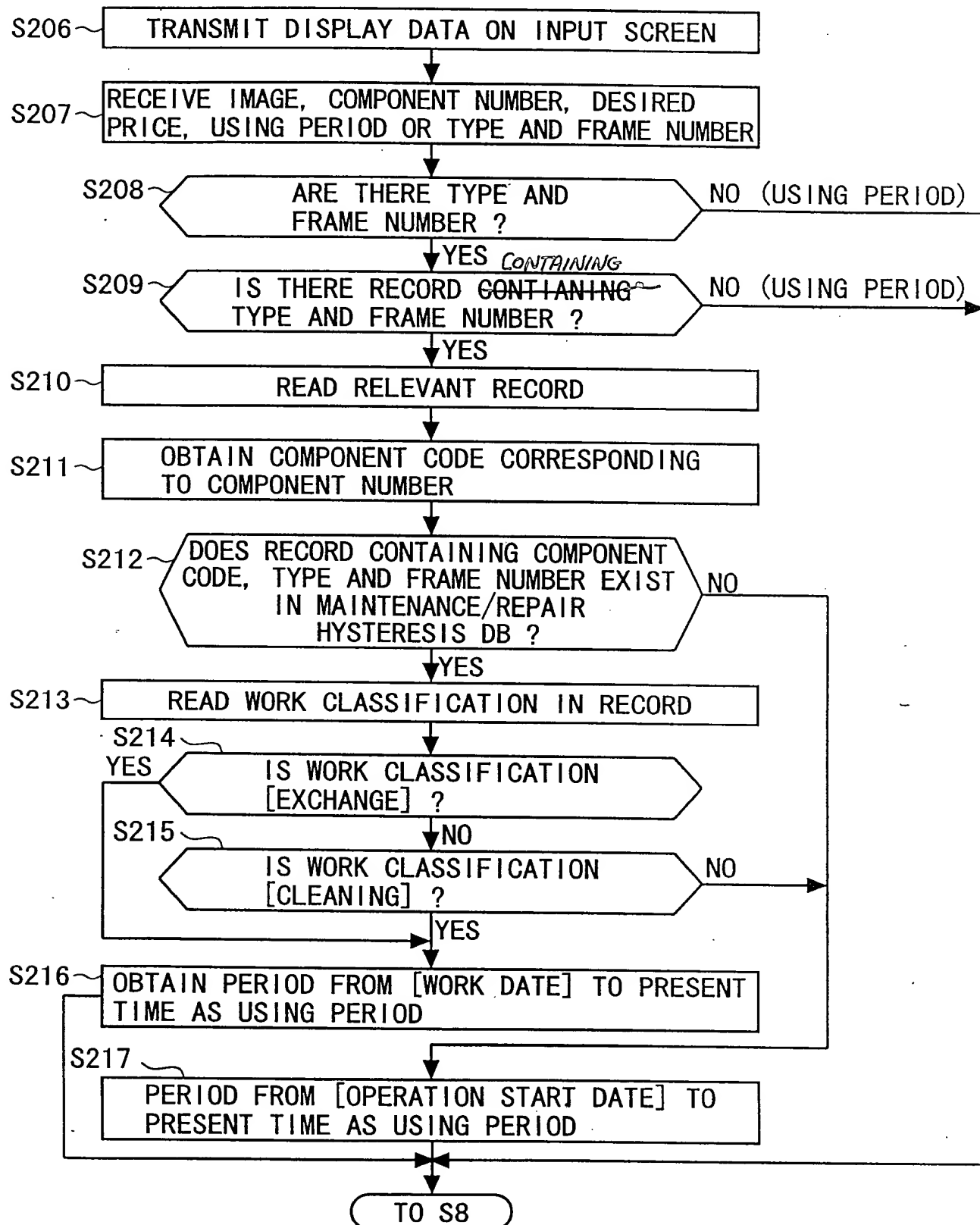




FIG. 22

29:VEHICLE DB

TYPE	FRAME NUMBER	OPERATIONS ^{START} DATE
AAA	XXXXX	2000/1/1
⋮	⋮	⋮

FIG. 23

28:MAINTENANCE/REPAIR HISTORY DB

TYPE	FRAME NUMBER	OPERATION DATE	COMPONENT CODE	WORK CLASSIFICATION (EXCHANGE, CLEANING, PLATE WORKING, COATING)
AAA	XXXXX	2000/1/1	1234	EXCHANGE
⋮	⋮	⋮	⋮	⋮